IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

STATUS OF THE CLAIMS:

1-49. (Canceled)

50. (New): A method for identifying a candidate compound capable of treating a cellular growth or proliferation disorder, the method comprising:

a) contacting a sample comprising a polypeptide selected from the group consisting of:

(i) an amino acid sequence which is at least 95% identical to the amino acid sequence of SEQ ID NO:2,

(ii) an amino acid sequence which is at least 95% identical to the amino acid sequence encoded by the cDNA insert of the plasmid deposited with ATCC as Patent Deposit Number PTA-3439, or

(iii) a fragment comprising at least 100 amino acids of SEQ ID NO:2,

wherein the polypeptide or fragment thereof has dehydrogenase activity, with a test compound under conditions suitable for binding;

b) detecting binding of the test compound to the polypeptide to identify a test compound that binds to the polypeptide;

c) incubating the test compound which binds to the polypeptide with a sample comprising a cancer cell; and

d) determining whether the test compound ameliorates cellular growth or proliferation of the cancer cells;

thereby identifying a candidate compound capable of treating a cellular growth or proliferation disorder when a test compound is identified which ameliorates cellular growth or proliferation.

51. (New): A method for identifying a candidate compound capable of treating a cellular growth or proliferation disorder, the method comprising:

a) contacting a polypeptide comprising the amino acid sequence of SEQ ID NO:2, the amino acid sequence encoded by the cDNA insert of the plasmid deposited with ATCC as Patent Deposit Number PTA-3439, with a test compound under conditions suitable for binding;

b) detecting binding of the test compound to the polypeptide to identify a test compound that binds to the polypeptide;

c) incubating the test compound which binds to the polypeptide with a sample comprising a cancer cell; and

d) determining whether the test compound ameliorates cellular growth or proliferation of the cancer cells;

thereby identifying a candidate compound capable of treating a cellular growth or proliferation disorder when a compound is identified which ameliorates cellular growth or proliferation.

52. (New): The method of claim 50, wherein the compound is a small molecule.

53. (New): The method of claim 51, wherein the compound is a small molecule.

54. (New): The method of claim 50, wherein the disorder is cancer.

55. (New): The method of claim 51, wherein the disorder is cancer.

56. (New): The method of claim 54 wherein the cellular growth or proliferation disorder is selected from the group consisting of lung cancer, breast cancer, ovarian cancer and colon cancer and the cancer cell is selected from the group consisting of a lung cancer cell, a breast cancer cell, an ovarian cancer cell and a colon cancer cell.

57. (New): The method of claim 55 wherein the cellular growth or proliferation disorder is selected from the group consisting of lung cancer, breast cancer, ovarian cancer and colon cancer and the cancer cell is selected from the group consisting of a lung cancer cell, a breast cancer cell, an ovarian cancer cell and a colon cancer cell.

58. (New): The method of claim 50, wherein the polypeptide is encoded by the nucleotide sequence set forth in SEQ ID NO:1 or SEQ ID NO:3.

59. (New): The method of claim 51, wherein the polypeptide is encoded by the nucleotide sequence set forth in SEQ ID NO:1 or SEQ ID NO:3.

60. (New): The method of claim 50, wherein the polypeptide further includes heterologous sequences.

61. (New): The method of claim 51, wherein the polypeptide further includes heterologous sequences.

62. (New): The method of claim 50, wherein the binding of the test compound to the polypeptide is detected by a method selected from the group consisting of:

a) direct detecting of test compound/polypeptide binding;

b) a competition binding assay;

c) an immunoassay;

d) a yeast two-hybrid assay; and

e) an assay for dehydrogenation of Acyl-CoA esters.

63. (New): The method of claim 51, wherein the binding of the test compound to the polypeptide is detected by a method selected from the group consisting of:

a) direct detecting of test compound/polypeptide binding;

b) a competition binding assay;

c) an immunoassay;

d) a yeast two-hybrid assay; and

e) an assay for dehydrogenation of Acyl-CoA esters.